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ABSTRACT

Retention of college students in a special developmental program in the School of General Studies at Purdue University, Calumet (Indiana), was studied. Data were gathered from fall 1981 through spring 1984 on 245 students who completed developmental studies program requirements (24 hours) and transferred to a degree-granting school. Success was empirically defined as completing a "C" or higher grade in the first semester after transferring to a degree-granting school. Of the 245 students, 22% transferred to the School of Liberal Arts and Sciences (LAS), and 78% transferred into the School of Professional Studies (SPS). Sixty-two percent of these students earned a "C" or better in the degree-granting school. The success rate of students varied according to the school to which they transferred. In LAS, 76% were successful; in SPS 58% were successful. Other data indicate that performance in the 24-hour developmental sequence is related to success in the degree-granting schools. For example, 78% of students who were successful in English 100 or English 104 while in the School of General Studies later earned a "C" or better in their first semester in a degree-granting school. A discriminant analysis using Scholastic Aptitude Test scores and California Achievement Test scores was also conducted to determine what variables differentiate the successful group. (SW)

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RETENTION ON THE COMMUTER CAMPUS: NO MORE REVOLVING DOORS

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The School of General Studies (GNS) of Purdue University Calumet (PUC) was established in 1969 to function as the academic unit to help students develop the academic skills required for success in college. Until 1980, there was no systematic plan for retention and skill building, and "revolving door" data reflect that lack of planning. For example, in the semester before the special developmental program, which is the focus of this report, was established, 68% of GNS students were dropped after two semesters for academic reasons, and only 26% of GNS students were considered successful in college (earned a "C" or higher in courses which counted toward a degree).

This report is an in-depth evaluation of 245 GSD students who have entered the Developmental Program since the 1981-82 academic year, have completed its requirements (24 hours), and have transferred to a degree-granting school. Data are gathered each summer. Thus, this report covers a three year period (Fall, 1981 through Spring, 1984). In that period, 1185 developmental students (GSD students) have been enrolled in GNS 100, a required first course for GSD students. Only 45% of those students have been dropped for academic reasons, compared with 68% in earlier years; 62% have earned a "C" or higher, compared with 26% in earlier years.

METHOD

Criteria for Success

For purposes of this report, success is empirically defined as a student who earned a "C" or higher in the first semester after transferring to a degree-granting school. Students who are in the "not success" group are those who earned below a "C" in the degree-granting school.

Subjects

A total of 245 developmental students have completed the developmental program and transferred to a degree-granting school. Twenty-two percent of the students transferred to the School of Liberal Arts and Sciences (LAS), and 78% transferred into the School of Professional Studies (SPS). The students were almost equally divided between males and females (See Table 1).

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RESULTS

Was the program successful?

Given the definition of success for this report, preparation of GSD students to enter a degree-granting school and earning a semester index of "C" or better in the degree-granting school, 62% (151/245) of the subjects in this study were successful. Data provided by the registrar's office indicate that 72% of students who were not GSD and entered directly into a degree-granting school earned a "C" or better during their first semester at Purdue University Calumet. In addition, some 17 students have earned associate degrees, and one person has earned a bachelor's degree.

One should also note that the success rate of students varied according to the school to which they transferred. In LAS, 76% were successful; in SPS, 58% were successful. Table 2 indicates that there were some departments within schools where students are more successful than others. Within SPS the Nursing Department received most of the GSD students, and 75% of those nursing students were successful. Most of the transfers to LAS were to the Department of Behavioral Sciences or to the Undesignated category, and 83% and 93% of those transfers were successful.

Are GNS Developmental Courses Related to Success?

Other data indicate that performance in the GNS 24-hour developmental sequence is related to success in the degree granting schools. The relationship ranges from 60% to 78%. For example, 78% of students who were successful in English 100 or English 104 while in GNS later earned a "C" or better in their first semester in a degree-granting school. However, only 60% of those who were successful in GNS 100 and English 186 later earned a "C" or higher in the degree-granting school of their choice. Furthermore, 82% of those students who succeeded in either English 100 or English 104 were also successful in other English classes in the degree-granting school. Some 80% of those who succeeded in a GNS mathematics course also succeeded in subsequent mathematics courses.

What variables differentiate the successful group?

The question of why some students who completed the developmental program were successful and others were not was addressed in several ways. Initially, comparisons were made via t-tests to see if any one variable differentiated the two groups. Table 3 reflects the means and independent t-test values when comparing the success and not success groups. Two pre-test variables, the language expression subtest of the California

Achievement Test (CAT) and the Total CAT battery, were statistically significant between groups. The success group entered with a higher score on language expression and a higher Total CAT Battery score, but their scores on those variables were not significantly different from the not-success group on the post-test scores. All variables on the CAT increased (pre-test versus post-test) for both the success and not success groups, suggesting that the GNS developmental courses do increase the basic skills measured by the CAT. Other data in Table 3 comparing the success and not-success groups indicate that students in the success group carried fewer hours while in GNS, dropped fewer hours during their first semester in the degree-granting school, and had a higher first semester grade index in the degree-granting school. There were no significant differences in other variables examined.

A discriminant analysis indicated that the pre-test cluster of language expression, mathemathics concepts, and total CAT battery discriminate between the success and not success groups. Using the SAT scores and post-test data, the cluster of SAT verbal score, SAT total score, and the CAT post-test scores of reading vocabulary, reading comprehension, and math computation discriminate between the groups.

TABLE 1. Developmental Students by School, Sex, and Success

	LAS		SPS		Totals
	Male	Female	Male	Female	
Success	12	29	56	54	151
Not Success	6	6	34	34	80
Dropout	1	0	10	3	14
Totals	19	35	100	91	245

Table 2. Transfers by Successes and Departments within Schools.

School/Dept.	Success	Not Success	Dropout	Percent Success
LAS				
Beh. Sciences	20	4	0	83%
Biology	2	3	0	40%
Communications	5	3	0	62%
Foreign Lang.	0	1	0	0%
Hist./Pol. Sci.	1	0	1	50%
Undesignated	13	1	0	93%
LAS TOTAL	41	12	1	54
LAS Success Rate (41/54) = 76%				
SPS				
Computer	8	9	1	44%
Const. Tech.	2	1	0	67%
Education	3	4	1	38%
Elec. Eng.Tech.	8	10	1	42%
Engineering	0	3	1	0%
Management	3	3	1	43%
Mfg./Spv.	5	1	2	63%
Pre-Nursing	24	8	0	75%
Nursing	12	4	0	75%
Undesignated	45	25	6	59%
SPS TOTAL	110	68	13	191
SPS Success Rate (110/191) = 58%				

TABLE 3. Means of All Variables and T-test Comparisons of Successful and Unsuccessful Groups.

Variable	Success (N=151)		Not Success (N=80)		Pre T-test	Post T-test
	Pre	Post	Pre	Post		
Verbal SAT	324		311		1.55	
Math SAT	351		354		- .40	
Total SAT	674		665		.73	
CAT Scores						
Read Vocab.	5.21	5.57	5.05	5.62	.99	- .32
Read Comp.	5.12	5.68	4,90	5.39	1.47	1.71
Spelling	5.20	5.58	4.95	5.29	1.17	1.18
Language Mech.	5.16	5.78	4.95	5.69	1.20	.43
Language Exp.	5.22	5.74	4.89	5.69	2.11*	.28
Math Comput.	5.18	5.74	4.99	5.49	1.14	1.61
Math Concepts	5.10	5.70	5.06	5.59	.20	.69
Total Battery	5.15	5.67	4.86	5.51	2.21*	1.12
Ave. Hrs./sem. in GNS		10.83		11.61	-2.98**	
Sem. in GNS before CODO		3.43		3.31	.62	
Hrs. 1st sem after CODO		10.75		10.89	- .28	
Hrs. Dropped after CODO		.83		1.84	-3.09**	
GPA 1st sem after CODO		4.64		2.89	18.67***	
Age		23.13		22.81	.48	

* p<.05
** p<.01
***p<.001

NOTE: Grade Point Average is based on a 6.0 system.